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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,176	10/30/2003	Chun He	2107-28	9905

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SILICON VALLEY PATENT AGENCY, INC.  
7394 WILDFLOWER WAY  
CUPERTINO, CA 95014

EXAMINER

HASAN, MOHAMMED A

ART UNIT PAPER NUMBER

2873

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/698,176

**Applicant(s)**

HE ET AL.

**Examiner**

Mohammed Hasan

**Art Unit**

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1- 8, 12 - 14, 18, and 22 - 24 is/are rejected.
- 7) ☒ Claim(s) 9 - 11, 15 - 17, 19 - 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Oath/Declaration*

1. Oath and declaration filed on 10/30/2003 is accepted.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 8, 12 – 14, 18, and 22 - 24 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Li et al (US 2002/0094162 A1) in view of Wu et al (US 2003/0090809 A1).

Regarding claim 1, Li et al discloses (refer to figure 1) a method of assembling an optical device having a GRAIN lens 11, a filter 12 and an optical filter reflecting light beams at wavelengths other than a selected wavelength and a transmitting a light beam at the selected wavelength (paragraph 0026) . Li et al discloses all of the claimed limitations except a second assembly including a second lens assembly and the second assembly coaxially with the optical filter facing the second assembly and adjusting the second assembly with respect to the mechanical axis of the first assembly such that any

light beam refracting from the first assembly is collected with a minimum loss by the second assembly. However, Wu et al discloses (refer to figure 1) the GRIN lens 12 , a filter 14 (paragraph 0006).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a GRIN lens 12 and a filter 14 in to the Li a collimating assembly for the purpose of inexpensive collimating device having low insertion loss as taught by Wu et al ( paragraph 0008).

Regarding claim 2, Li et al discloses , a sleeve 14 (paragraph 0026).

Regarding claim 3, Lie et al discloses, a sleeve 14 is not straight because the second assembly positioned off the mechanical axis of the first assembly.

Regarding claim 4, Li et al discloses, the sleeve 14 is again encapsulated in a straight sleeve.

Regarding claim 5, Li et al discloses, the forming of the first assembly having inserting the optical filter 14 near an end of a tubing and placing the first lens in the tubing afterwards but a distance away from the optical filter, where the distance is adjusted with respected to a reflection measurement of a light beam at a wavelength other than the selected wavelength such that the reflection measurement is minimum (paragraph 0026).

Regarding claim 6, Li et al discloses (refer to figure 1) wherein both of the optical filter 12 and the first lens 11 respectively bonded to the tubing (paragraph 0026).

Regarding claim 7, Li et al discloses (refer to figure 1) wherein the optical filter and the first lens are respectively bonded to the tubing by a type of adhesive 13 (paragraph 0026).

Regarding claim 8, Wu et al discloses (refer to figure 1) wherein the second lens assembly comprises inserting the second lens 12 into a tubing and bonding the second lens to the tubing by a type of adhesive ( paragraph 0005).

Regarding claim 12, Li et al discloses ( refer to figure 1) an optical apparatus having a GRIN lens 11, a filter 12, and an optical filter reflecting light beams at wavelengths other than a selected wavelength and a transmitting a light beam at the selected wavelength ,a sleeve 14 encapsulate GRIN lens 11 (paragraph 0026 ) . Li et al discloses all of the claimed limitations except a second assembly including a second lens assembly and any light beam refracting from the first assembly collected with a minimum loss by the second loss. . However, Wu et al discloses (refer to figure 1) the GRIN lens 12 (paragraph 0006).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a GRIN lens 12 in to the Li a collimating assembly for the purpose of inexpensive collimating device having low insertion loss as taught by Wu et al ( paragraph 0008).

Regarding claim 13, Wu et al discloses, wherein the tubing is not straight because of the second assembly positioned off the mechanical axis of the first assembly (as shown in figure 2).

Regarding claim 14, Lie et al discloses, where the tubing is again encapsulated in a straight sleeve 14 (paragraph 0026) .

Regarding claim 18, Wu et al discloses the second lens assembly is fixed to tubing by a type of adhesive (27) (paragraph 0005).

Regarding claim 22, Li et al discloses ( refer to figure 1) an optical apparatus having a GRIN lens 11, a filter 12 and an optical filter reflecting light beams at wavelengths other than a selected wavelength and a transmitting a light beam at the selected wavelength (paragraph 0026) and at least one optical pigtail (a pair of fibers 23, 24 , refer to figure 4 ) providing a light beam positioned a distance from the first lens (paragraph 0027) . Li et al discloses all of the claimed limitations except a second lens assembly. However, Wu et al discloses (refer to figure 1) the GRIN lens 12 (paragraph 0006).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a GRIN lens 12 and a filter 14 in to the Li a collimating assembly for the purpose of inexpensive collimating device having low insertion loss as taught by Wu et al (paragraph 0008).

Regarding claim 23, Li et al discloses (refer to figure 1) the first lens and the second lenses are identical (paragraph 0026).

Regarding claim 24, Li et al discloses, a GRIN lens 11 (paragraph 0026).

***Allowable Subject Matter***

3. Claims 9 – 11, 15 - 17, and 19 – 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show measuring a transmission of the light beam from the second assembly and adjusting the second assembly off the mechanical axis of the first assembly such that the transmission of the light beam from the second assembly becomes minimum, the first and second lens lenses are C lenses, the first and second lenses are ball lenses, the distance is obtained with respect to a reflection measurement of a light beam at a wavelength other than the selected wavelength such that the reflection measurement is minimum.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Itoh et al discloses (US 2003/0081897 A1) discloses aspherical rod lens and method of manufacturing aspherical rod lens.

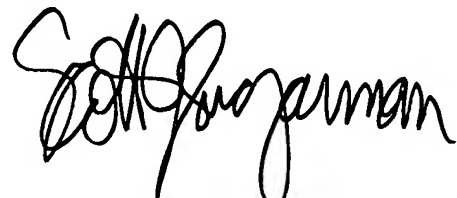
***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH  
July 22, 2004



Scott J. Sugarman  
Primary Examiner